

1. A suspension system for a motorcycle,
comprising:

- a. a motorcycle main frame;
- b. a swing arm pivotally mounted to the
motorcycle main frame about a pivot axis;
- c. an air-bag suspension system, wherein the
swing arm has a pair of wheel mounts located
on a wheel axis spaced to receive the rear
wheel, wherein the swing arm further includes
pairs of arms extending from each of the wheel
mounts and connectors connecting each pair of
arms, wherein each connector is joined to the
other connector by an upper transverse cross
member and a lower transverse cross member
and, wherein an intermediate transverse cross
member extends along the swing arm pivot axis
and through the connectors and is secured to
the struts of the motorcycle main frame.